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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,540	06/03/2005	Frederick W.M Stentiford	36-1903	4758

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EXAMINER	
TORRES, JOSE	
ART UNIT	**PAPER NUMBER**
2624	

MAIL DATE	DELIVERY MODE
10/23/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/537,540	STENTIFORD, FREDERICK W.M	
	Examiner	Art Unit	
	JOSE M. TORRES	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 June 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 June 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *01/26/2007, 07/06/2007 and 05/20/2008*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Comments

1. The Preliminary Amendment filed on June 3, 2005 has been entered and made of record.

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.
(b) CROSS-REFERENCE TO RELATED APPLICATIONS.
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
(f) BACKGROUND OF THE INVENTION.
    (1) Field of the Invention.
    (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
(g) BRIEF SUMMARY OF THE INVENTION.
(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
(i) DETAILED DESCRIPTION OF THE INVENTION.
(j) CLAIM OR CLAIMS (commencing on a separate sheet).
(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if

the required "Sequence Listing" is not submitted as an electronic document on compact disc).

2. The disclosure is objected to because of the following informalities:

- The Section heading "BACKGROUND OF THE INVENTION" and "(1) Field of the Invention" is missing. Examiner recommends placing the headings in Page 1, before the first paragraph.
- Page 1 line 18: "**Prior Art**" should be -- (2) Description of Related Art --
- Page 4 line 27: "**Invention**" should be -- BRIEF SUMMARY OF THE INVENTION --
- Page 5 line 8: "**Examples**" should be -- BRIEF DESCRIPTION OF THE DRAWINGS --
- Page 5 line 24: "**Basic Method**" should be -- DETAILED DESCRIPTION OF THE INVENTION --
- Page 6 line 4: "come conventional method" should be -- some conventional method --

Appropriate correction is required.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-8 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. While the claims recite a series of steps or acts to be performed, a statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing (Reference the May 15, 2008 memorandum issued by Deputy Commissioner for Patent Examining Policy, John J. Love, titled "Clarification of 'Processes' under 35 U.S.C. 101"). The instant claims neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. Examiner recommends adding the step of using a computer to perform the steps of displaying, receiving, determining and selecting.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1 and 5-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Wood et al. ("Iterative Refinement by Relevance Feedback in Content-Based Digital

Image Retrieval", Proceedings of the Sixth ACM International Conference on Multimedia, 12 September 1998, pp. 13-20).

Re claim 1: Wood et al. disclose a method of retrieval of stored images stored with metadata for at least some of the stored images, the metadata comprising at least one entry specifying (a) a part of the respective image ("regions"); (b) another stored image ("other images to be retrieved"); and (c) a measure of the degree of similarity ("best match") between the specified part and the specified other stored image (Sections 2.1 Preprocessing and 2.2 Query Sessions, Pages 14-15); the method comprising i. displaying one or more images ("initial retrieval", Abstract, Page 13); ii. receiving input from a user indicative of part of the displayed images ("A query is initiated by the selection of a region of interest from a key image", Section 2.2 Query Sessions, Page 15); iii. determining measures of interest ("Euclidian Distance") for each of a plurality of non-displayed stored images specified by the metadata for the displayed image (s), as a function of the similarity measure (s) and the relationship between the user input and the part specified ("According to the locality of the feature vectors for the user's classified examples, they are tagged as positive or negative clusters", Section 2.2 Query Sessions, Page 15); iv. selecting from those non-displayed stored images, on the basis of the determined measures, further images for display ("Those regions who are closest to a positive C_{min} are chosen as the best matches for the new set of images which is then re-classified by the user.", Section 2.2 Query Sessions, Page 15).

Re claims 5 and 6: Wood et al. disclose the specified parts of the images are points within the images/regions thereof ("irregularly shaped regions which should represent the actual outlines of objects in the images.", Section 2.1 Preprocessing, Page 14).

Re claim 7: Wood et al. disclose steps (ii) to (iv) are repeated at least once ("The user is required to state, for each of the returned images, whether the region selected is a match to the original or not … the system attempts to refine it's search.", Sections 2.2 Query Sessions and 2.3 Off-Line Training", Page 15).

Re claim 8: Wood et al. disclose including the initial steps of: receiving one or more external images ("Digital image libraries", Section 1 Introduction, Page 13); generating said metadata in respect of the external image(s) (Section 2.1 Preprocessing, Page 14); and displaying the external image(s) (Section 2.2 Query Sessions, Page 15).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al. in view of Westerman (U.S. Pat. No. 7,076,118). The teachings of Wood et al. have been discussed above.

As to claim 2, Wood et al. does not explicitly disclose the receiving of input from a user is performed by means operable to observe movement of the user's eye.

Westerman teaches the receiving of input from a user is performed by means operable to (FIG. 2, "Eye Gaze System **42**") observe movement of the user's eye (Col. 5 line 63 through Col. 6 line 6).

Therefore, in view of Westerman, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wood et al. by incorporating the eye gaze system operable to observer movement of the user's eye in order to identify important regions in the image permitting the image processor to focus on those portions, thereby reducing the computational requirements (Col. 4 lines 8-15).

9. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al. in view of Rui et al. ("Relevance Feedback: A Power Tool for Interactive Content-Based Image Retrieval", IEEE Transactions on Circuits and Systems for Video Technology, Vol. 8, No. 5, September 1998). The teachings of Wood have been discussed above.

As to claims 3 and 4, Wood et al. does not explicitly disclose the user input identifies image locations and associates attention durations, and each measure of interest is the sum of individual measures for each identified location that is within a

predetermined distance of a specified part, each said individual measure being a function of the attention duration that is associated with the identified location and the similarity measure that is associated with the specified part, each individual measure is the product of the duration and the similarity measure.

Rui et al. teaches the user input ("visual features") identifies image locations ("*interactive* region segmentation") and associates attention durations ("weights"), and each measure of interest is the sum of individual measures (Equation 7) for each identified location that is within a predetermined distance of a specified part ("Similarity Measure"), each said individual measure being a function of the attention duration that is associated with the identified location and the similarity measure that is associated with the specified part, each individual measure is the product (Equation 8) of the duration and the similarity measure (Sections I Introduction and III Integrating Relevance Feedback in CBIR, Pages 645 and 646).

Therefore, in view of Rui et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wood et al. by incorporating the visual feature for the segmented regions and associate weights, and each measure of interest is the sum of individual measures for the identified region, and each individual region is the product of the weights and the similarity measure in order to automatically adjust an existing query using information fed back by the user about the relevance of previously retrieved objects (Section I Introduction, Page 645).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fredlund disclose Imaging Method and System for Determining an Area of Importance in an Archival Image.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSE M. TORRES whose telephone number is (571)270-1356. The examiner can normally be reached on M-F: 8:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on 571-272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jingge Wu/
Supervisory Patent Examiner, Art Unit 2624

/JOSE M. TORRES/
10/12/2008

Examiner, Art Unit 2624